

ABSTRACT OF THE DISCLOSURE

A moving magnet type linear actuator is provided, which can solve a problem of linear guide life even in case that magnetic attraction force between a magnet and an armature is
5 reduced to perform a high-frequent acceleration and deceleration operation.

A stator of the linear actuator includes an armature 1 which is fixed onto a stator base 2 and has plural coils 11, and linear guide rails 6 arranged linearly so as to sandwich
10 both sides of the armature 1; and a mover of the same includes a linear guide block 8 provided so as to slide on the linear guide rail 6, and a field magnet provided with plural field permanent magnets 3 which are arranged opposed to the armature part through an air gap, held in a hole portion 14A provided
15 in a nonmagnetic magnet holder 14, and arranged so that magnetic poles of the N-pole and the S-pole are different alternately, and with a magnetic back yoke 10 arranged in the back of the field permanent magnet 3 through an air gap, provided in a recess part 14B provided in a magnet holder 14, and formed by
20 laminating thin plate-shaped electromagnetic steel plates.